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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent Application of: Lei
Serial No.: 10/072,490
Filed: February 5, 2002
For: Fuel Injector With Dual Control Valve

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) Group Art Unit: 3752
) Atty Docket: D-5253
)
)

#2
NDB
3-17-03

INFORMATION DISCLOSURE STATEMENT

RECEIVED

Box Non-Fee-Amendment
Assistant Commissioner for Patents
Washington, D.C. 20231

MAY 16 2002
TECHNOLOGY CENTER R3700

Sir:

Preliminary to the examination of the above-identified application, Applicants wish to bring to the attention of the Examiner the references identified on the attached form PTO-1449, copies thereof being enclosed herewith.

The below listed prior art references generally relate to fuel injector assemblies:

Patent References:

U.S. Pat. No. 5,878,720 issued to Anderson, et al. on March 9, 1999 for a Hydraulically Actuated Fuel Injector With Proportional Control.

U.S. Pat. No. 5,975,437 issued to Streicher, et al. on November 2, 1999 for a Fuel Injector Solenoid Utilizing An Apertured Armature.

U.S. Pat. No. 5,862,792 issued to Paul, et al. on January 26, 1999 for a Self-Injection System.

U.S. Pat. No. 5,954,030 issued to Sturman, et al. on September 21, 1999 for Valve Controller Systems And Methods And Fuel Injection Systems Utilizing The Same.

U.S. Pat. No. 5,682,858 issued to Chen, et al. on November 4, 1997 for a Hydraulically-Actuated Fuel Injector With Pressure Spike Relief Valve.

U.S. Pat. No. 6,161,770 issued to Sturman on December 19, 2000 for a Hydraulically Driven Springless Fuel Injector.

U.S. Pat. No. 4,440,132 issued to Terada, et al. on April 3, 1984 for a Fuel Injection System.

U.S. Pat. No. 5,535,723 issued to Gibson, et al. on July 16, 1996 for an Electronically-Controlled Fluid Injector Having Pre-Injection Pressurizable Fluid Storage Chamber And Outwardly-Opening Direct-Operated Check.

U.S. Pat. No. 5,913,300 issued to Drummond on June 22, 1999 for an Injector.

U.S. Pat. No. 5,640,329 issued to Matsunaga, et al. on June 17, 1997 for a Method Of Estimating Heat Generated In Chip.

U.S. Pat. No. 5,901,685 issued to Noyce, et al. on May 11, 1999 for a Fuel Injector With Damping Means.

U.S. Pat. No. 5,673,669 issued to Maley, et al. on October 7, 1997 for a Hydraulically-Actuated Fluid Injector Having Pre-Injection Pressurizable Fluid Storage Chamber And Direct-Operated Check.

U.S. Pat. No. 5,752,659 issued to Moncelle on May 19, 1998 for a Direct Operated Velocity Controlled Nozzle Valve For A Fluid Injector.

U.S. Pat. No. 5,697,342 issued to Anderson, et al. on December 16, 1997 for a Hydraulically-Actuated Fuel Injector With Direct Control Needle Valve.

U.S. Pat. No. 5,979,415 issued to Sparks, et al. on November 9, 1999 for a Fuel Injection Pump With A Hydraulically-Spill Valve.

U.S. Pat. No. 5,628,293 issued to Gibson, et al. on May 13, 1997 for an Electronically-Controlled Fluid Injector System Having Pre-Injection Pressurizable Fluid Storage Chamber And Direct-Operated Check.

U.S. Pat. No. 5,709,341 issued to Graves on January 20, 1998 for a Two-Stage Plunger For Rate Shaping In A Fuel Injector.

U.S. Pat. No. 6,024,296 issued to Wear, et al. on February 15, 2000 for a Direct Control Fuel Injector With Dual Flow Rate Orifice.

U.S. Pat. No. 5,893,516 issued to Harcombe, et al. on April 13, 1999 for an Injector.

U.S. Pat. No. 5,931,139 issued to Mack on August 3, 1999 for a Mechanically-Enabled Hydraulically-Actuated Electronically-Controlled Fuel Injection System.

U.S. Pat. No. 5,460,329 issued to Sturman on October 24, 1995 for a High Speed Fuel Injector.

U.S. Pat. No. 5,651,345 issued to Miller, et al. on July 29, 1997 for a Direct Operated Check HEUI Injector.

U.S. Pat. No. 5,669,355 issued to Gibson, et al. on September 23, 1997 for a Hydraulically-Actuated Fuel Injector With Direct Control Needle Valve.

U.S. Pat. No. 5,622,152 issued to Ishida on April 22, 1997 for a Pressure Storage Fuel Injection System.

U.S. Pat. No. 5,181,494 issued to Ausman, et al. on January 26, 1993 for a Hydraulically-Actuated Electronically-Controlled Unit Injector Having Stroke-Controlled Piston And Methods Of Operation.

U.S. Pat. No. 5,986,871 issued to Forck, et al. on November 16, 1999 for a Method Of Operating A Fuel Injector.

U.S. Pat. No. 5,893,350 issued to Timms on April 13, 1999 for an Injector.

U.S. Pat. No. 5,551,398 issued to Gibson, et al. on September 3, 1996 for an Electronically-Controlled Fluid Injector System Having Pre-Injection Pressurizable Fluid Storage Chamber And Direct-Operated Check.

U.S. Pat. No. 5,463,996 issued to Maley, et al. on November 7, 1995 for a Hydraulically-Actuated Fluid Injector Having Pre-Injection Pressurizable Fluid Storage Chamber And Direct-Operated Check.

U.S. Pat. No. 5,738,075 issued to Chen, et al. on April 14, 1998 for a Hydraulically-Actuated Fuel Injector With Direct Control Needle Valve.

U.S. Pat. No. 5,685,490 issued to Ausman, et al. on November 11, 1997 for a Fuel Injector With Pressure Bleed-Off Stop.

Non-Patent References:

"The Sturman Injector," 1 page illustration of an injector allegedly invented by Oded Sturman as early as May, 1993, according to publicly available documents in Cause No. 99-CV-1201 pending in the Federal District Court for the Central District Of Illinois.

S.F. Glassey, A.R. Stockner, M.A. Flinn, Caterpillar, Inc., "HEUI-A New Direction For Diesel Engine Fuel Systems," 93270, , pgs. 1-11.

W. Boehner, K. Hummel, "Common Rail Injection Systems For Commercial Diesel Vehicles," 970345, pgs. 133-141.

N. Guerrassi, P. Dupraz, "A Common Rail Injection System For High Speed Direct Injection Diesel Engines," 980803, pgs. 13-20.

M. Osenga, "CAT Gears Up Next Generation Fuel Systems," North American Edition, Diesel Progress, August, 1998, pgs. 82-90.

C. Cole, O.E. Sturman, D. Giordano, Sturman Industries, Inc., "Application Of Digital Valve Technology To Diesel Fuel Injection," 1999-01-0196, pgs. 1-7.

An action on the merits is requested.

Warrenville, IL 60555
Date: May 9, 2002
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Respectfully submitted,



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CERTIFICATE UNDER 37 CFR 1.8 (a)

I hereby certify that this INFORMATION DISCLOSURE STATEMENT is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on or before May 9, 2002.



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